

IN THE DRAWINGS:

Please delete figures 1-30b and replace with new figures 1-30b, which are each marked as a "Replacement Sheet." Figures 1-30b are being replaced because the Preliminary Amendment, dated December 8, 2003, failed to identify each figure as a "Replacement Sheet."

- 5 Figures 31a-46i were incorporated by reference from the parent application, U.S. Patent No. 6,694,270 and were properly entered in the Preliminary Amendment dated December 8, 2003. Figures 31a-46i are identified as "New Sheet" because the Preliminary Amendment, dated December 8, 2003, failed to identify each figure as a "New Sheet" when they were added.

RESPONSE

This is a response to the Office Action dated October 1, 2004. Claims 1-24 are pending in the application. In the Office Action, the Examiner objected to various informalities and typographic errors in the specification. In addition, the Examiner objected to claims 1-20 under 37 C.F.R. § 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. The examiner rejected claims 1, 3, 4, 6, 9-21 and 24 under 35 U.S.C. § 102(e) as being anticipated by U.S. Pat. No. 5,859,596 ("McRae"). Claims 2, 5, 7, 8, 22 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McRae in view of Macrodyne Inc. Model 1690 Phasor Measurement Unit Product Description ("Macrodyne"), Applicant's Admissions of the prior art or Power System Applications for Phasor Measurement Units ("Burnett Jr., et. al.").

The rejections from the Office Action of October 1, 2004 are discussed below in connection with the various claims. No new matter has been added. Reconsideration of the application is respectfully requested in light of the following remarks.

I. DRAWING OBJECTIONS

The Examiner objected to the drawings as containing various informalities. With this response, appropriate corrections have been made. No new matter has been added. In particular, the following corrections have been made:

1. On page 7, paragraph 0059 of the detailed description has been modified to state: "The electricity distribution system 10 represents a distribution system that may be used in factories or utilities, or in industrial, commercial, manufacturing and/or institutional uses." This eliminates the confusion about whether the electricity distribution system 10 in the drawings was prior art. The electricity distribution system 10 is not known in the prior art, but rather is an aspect of the environment in which the invention is used. Figure 1 discloses elements not in the prior art, so it is improper to label Figure 1 as prior art.

2. Figures 1-30b have been amended to be properly identified as "Replacement Sheet" on the top margin of each Figure. They were originally replaced in the Preliminary Amendment on December 8, 2003 to correct the sheet numbers to reflect the new total

number of sheets after the addition of Figures 31a-46i also added by that Preliminary Amendment.

3. Figures 31a-46i have been amended to be properly identified as “New Sheet” on the top margin of each Figure. Figures 31a-46i are identified as “New Sheet” because the Preliminary Amendment, dated December 8, 2003, failed to identify each figure as a “New Sheet” when they were added in that Preliminary Amendment.

II. SPECIFICATION OBJECTIONS

The Examiner objected to the specification as containing various informalities and typographic errors. With this response, a substitute specification has been provided which corrects all of the errors noted by the Examiner. No new matter has been added. A marked up version of the substitute specification has also been provided showing the changes made except it does not detail the formatting changes and font changes made to the tables.

On page 1, the Examiner has objected to the incorporation by reference of 08/798,724, now U.S. Pat. No. 5,995,911, by U.S. application serial no. 08/798,723. The current application is a divisional of Application Serial no. 10/068,431, now U.S. Pat. No. 6,694,270, therefore, the current application explicitly incorporates the matter of its parent. The parent (now U.S. Pat. No. 6,694,270) was amended to explicitly incorporate all the text of 08/798,724, now U.S. Pat. No. 5,995,911. Accordingly, Applicant believes that all essential material has been explicitly incorporated in compliance with M.P.E.P. § 608.01(p)(I).

In particular, the following corrections have been made:

1. On the cover page, the reference number for the assignee (“PML Ref. No. 300109”) has been added underneath the reference number of the attorney for Applicant;
2. On page 1, the Related Applications section has been updated;
3. On page 1, paragraph 0001, line 7, the patent application identified as “08/798,923” has been corrected to “08/798,723”;
4. As mentioned above, on page 7, paragraph 0059 of the detailed description has been modified for clarity to state: “The electricity distribution system

represents a distribution system that may be used in factories or utilities, or in industrial, commercial, manufacturing and/or institutional uses.” This eliminates the confusion about whether the electricity distribution system 10 in the drawings was prior art. The electricity distribution system 10 is not known in the prior art, but rather is an aspect of the invention. As this would be apparent to those of skill in the art, this does not constitute new matter.

5. On page 13, paragraph 0076, “FDDI” has been changed to “fiber distributed data interface (FDDI)”;

6. The specification on page 14, paragraph 0080, has been modified so as to clarify the use of the terms RTS level, CTS level and RTS delay. The following was added at the end of paragraph 0080: “The communication ports may be configurable by at least one communications parameter. Each communications parameter would be configurable independent of a configuration of at least one communications parameter of other communication ports. Possible communications parameters of the communication ports include, but are not limited to a Clear to Send (CTS) signal and a Request to Send (RTS) signal. The RTS signal is used to indicate that the communications port wants to send data and the CTS signal is used to show that the port is available to send data, often in response to a RTS request for data. The RTS level and CTS level are the signals sent by the communications ports. The RTS delay signal is used when the request for data is delayed a set amount of time.” As this explanation would be apparent to those of skill in the art, this material does not constitute new matter;

7. The tables on pages 28-41, 43-56 and 58 have been modified by increasing the size of the lettering; and

8. On page 80, the last three sentences of the Abstract have been amended to: “Each of the ports is operative to receive communications from the network and transmit the communications to the processor. The ports are coupled with the network, wherein each device engages in multiple substantially

simultaneous communications from the ports, and whereby one of the devices communicates with another device over the network.”

Accordingly, Applicants respectfully request that the Examiner withdraw these objections to the Specification.

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III. REJECTIONS UNDER 37 C.F.R. § 1.75(a)

The Examiner objected to claims 1-20 under 37 C.F.R. § 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. With this response, claims 1, 9 and 18 have been amended for clarity and not
10 for reasons related to patentability.

Accordingly, Applicant respectfully requests that the Examiner withdraw this objection to claims 1-20.

IV. REJECTIONS UNDER 35 U.S.C. § 102

15 Independent claims 1, 21 and 24 were rejected under 35 U.S.C. § 102(e) as being anticipated by McRae (5,859,596). Applicant submits that McRae does not anticipate claims 1, 21 and 24 for the reasons that McRae is not prior art and further does not disclose all of the elements of each claim.

This application is a divisional of U.S. Pat. No. 6,694,270, which claims priority to
20 U.S. Pat. No. 5,650,936, filed on December 30, 1994. Therefore, this application claims priority to December 30, 1994. As McRae was filed August 30, 1996 and issued January 12, 1999, Applicant submits that it is not prior art under 35 U.S.C. § 102(e).

Both claim 1 and claim 24 relate to a monitoring device for an electric circuit. Both claim 1 and claim 24 claim systems for measuring the delivery of electrical energy from an
25 energy supplier comprising a digital network and monitoring devices coupled to the network. The monitoring devices comprise at least one sensor, at least one analog to digital converter, a processor coupled to the analog to digital converter and a plurality of communication ports. The communication ports receive transmissions from the digital network and transmit them to the processor of one of the monitoring devices. The monitoring devices can engage in

substantially simultaneous communication with the communication ports. Further, the monitoring devices are operative to communicate with each other over the digital network.

Claim 21 relates to a method for measuring the delivery of electrical energy from an energy supplier. The method comprises sensing an electrical parameter with a sensing device and generating an indicative analog signal, converting that signal to a digital signal, generating a computed value from the digital signal, receiving communications from the digital network and processing communications. Finally, the method comprises engaging in substantially simultaneous communications over the digital network where at least one communication is between multiple devices.

McRae discloses “a plurality of monitoring devices...connected to respective pieces of switchyard equipment and associated with a common communications network. A remote host computer is connected to the network to bi-directionally communicate with each monitoring device. The communications network is the existing power line used for delivering power and control signals to the switchyard equipment. Each monitoring device includes testing and/or monitoring circuitry for testing and/or monitoring one or more conditions of the piece of switchyard equipment and generating condition data therefrom, a storage device for storing the generated data, and a transmitter adapted to transmit the data to the remote location via the power line. The remote host computer receives the data transmitted to the remote location and stores the received data therein in a database format. The monitoring device can request previously sent data from the remote host computer. The monitoring includes an RS-232 port for accepting a local computer which conducts tests of the switchyard equipment, analyzes the results, compares the results with previous tests, and reprograms alarm parameters and baseline values associated with the switchyard equipment.”
McRae, Abstract.

McRae fails to disclose a system for measuring the delivery of electrical energy from an electrical supplier consisting of monitoring devices that engage in substantially simultaneous communication wherein the monitoring devices can communicate with one another through the digital network. McRae does disclose monitoring devices and a communications link between a remote host computer and each monitoring device through a communication node. See McRae, Abstract, Figure 4. However, McRae does not disclose

monitoring devices capable of engaging in substantially simultaneous communication. Further, McRae fails to disclose monitoring devices operative to communicate with one another over a digital network. Each monitoring device is capable of communicating with a remote computer rather than with other monitoring devices. McRae's communication network is merely the "existing power line used for delivering power and control signals to the switchyard equipment." McRae, Abstract. The power line connects only to a remote computer, whereas claims 1, 21 and 24 require monitoring devices connected to a digital network for substantially simultaneous communication wherein the monitoring devices can communicate with one another over the digital network. McRae does suggest that the monitoring device can bi-directionally communicate with the components on the power line, but these other components are limited to a communications node, a remote host computer, a node computer and a central host computer, and not other monitoring devices. McRae, Col. 3 lines 48-67. There is no suggestion that monitoring devices can communicate with one another directly or indirectly through the remote computer or other components. In fact, McRae merely discloses that the monitoring devices function to bi-directionally communicate with the remote computer for data measurement of and for data storage. McRae, Col. 2 lines 2-22.

For at least these reasons, McRae does not anticipate independent claims 1, 21 and 24. Accordingly, Applicant requests that the Examiner withdraw this rejection of Claims 1, 21 and 24.

Dependent claims 3, 4, 6 and 9-20 were also rejected pursuant to 35 U.S.C. § 102(e) as being anticipated by McRae. Dependent claims 3, 4, 6 and 9-20 should be allowed for the reasons set out above for the independent claims. Applicant therefore requests that the Examiner withdraw this rejection of these claims.

V. REJECTIONS UNDER 35 U.S.C. § 103(a)

A. McRae in view of Macrodyne

Dependent claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over McRae in view of Macrodyne. This claim should be allowed for the reasons set forth above for the independent claim. Neither McRae nor Macrodyne disclose all of the limitations of

the independent claim from which claim 2 depends. In particular, McRae fails to disclose monitoring devices coupled to a digital network for substantially simultaneous communication wherein the monitoring devices communicate with one another over the digital network. Accordingly, Applicants request that the Examiner withdraw these
5 rejections of dependent claim 2.

B. McRae in view of Applicant's Admissions of prior art

Dependent claims 5, 7 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McRae in view of Applicant's Admissions of prior art. These claims
10 should be allowed for the reasons set forth above for the independent claim. Neither McRae nor Applicant's Admissions of prior art disclose all of the limitations of the independent claim from which claims 5, 7 or 8 depend. In particular, McRae fails to disclose monitoring devices coupled to a digital network for substantially simultaneous communication wherein the monitoring devices communicate with one another over the digital network.

15 Accordingly, Applicants request that the Examiner withdraw these rejections of dependent claims 5, 7 and 8.

C. McRae in view of Burnett Jr., et. al.

Dependent claims 22 and 23 were rejected under 35 U.S.C. § 103(a) as being
20 unpatentable over McRae in view of Applicant's admissions of the prior art. These claims should be allowed for the reasons set forth above for the independent claim. Neither McRae nor Burnett disclose all of the limitations of the independent claim from which claims 22 or 23 depend. In particular, McRae fails to disclose monitoring devices coupled to a digital network for substantially simultaneous communication wherein the monitoring devices
25 communicate with one another over the digital network. Accordingly, Applicants request that the Examiner withdraw these rejections of dependent claims 22 and 23.

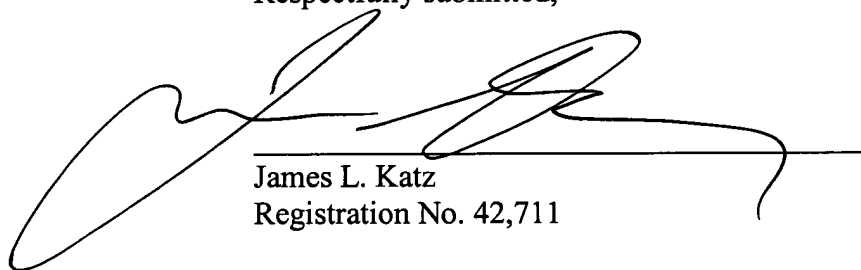
Attached hereto is a marked-up version with changes and an unmarked version of the specification. Also attached is a corrected version of the drawings.

CONCLUSION

Each of the rejections in the Office Action dated October 1, 2004 has been addressed and no new matter has been added. Applicants submit that all of the pending claims are in condition for allowance and notice to this effect is respectfully requested. The Examiner is invited to call the undersigned if it would expedite the prosecution of this application.

12/21/04
Date

Respectfully submitted,



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